A Secure, Web-Based Biorepository Database

Ref. No. none

Keywords: Software, Biopsy/Tissue Analysis, Cancer / Neoplasm: Cancer, Other Technology, biobank, biospecimen, database

Summary:

The National Cancer Institute seeks collaborators to co-develop a secure, web-based system that manages multi-dimensional data models on biospecimens.

Description of Technology:

Background:

The National Cancer Institute's (NCI) Comprehensive Data Resource (CDR) is a distributed web-based system that manages and maintains multi-dimensional data models on biospecimens. CDR was developed and is currently utilized to collect biospecimen and clinical data on biospecimens collected from cancer patient donors and post-mortem donors, for the NCI's Biospecimen Pre-analytical Variables (BPV) and NIH Genotype-tissue Expression (GTEx) programs. CDR provides secure data access based on user's roles and privileges. Through dynamic content redaction, it protects private information in compliance with HIPAA regulations. Its graphic user interfaces streamline data entry workflow based on standard operating procedures (SOPs) for sample collection and processing. The automated data checks and validations confirm data integrity and SOP adherence simultaneously. The reporting and analytics module supports data analysis and aggregation, report generation and real-time operational data snapshots. Collaboration Opportunity:

CDR was developed by the Frederick National Laboratory for Cancer Research (FNLCR) and is built with a combination of open-source and commercial technologies including Grails, Oracle, Groovy, jQuery, and Apache Solr. The CDR code has been made publicly available at GitHub (https://github.com/ncip/cdr). NCI seeks collaborators to examine CDR, to evaluate its suitability for wide-spread use, and to potentially adopt the system for their institutional needs. It is expected that the collaborators would have their own IT capacity to customize, and add new functions as needed. Value Proposition:

The NCI and FNLCR software team will provide technical consultation to help the collaborators to adopt the software for the implementation and customization at their organizations. Two webinars to introduce CDR and demo its main functions will be hosted by NCI to help potential collaborators further understand how CDR was implemented and its functions (see Webinar schedule below).

The goal of the collaboration is to explore whether CDR can be useful for biobanking operations in the extramural community. Through a collaborative effort, it could be demonstrated that CDR, as a freely available software package, could be adopted to standardize and streamline biobanking operations across the broader research community. The NCI reserves the right to enter into only those collaborations that, in its discretion, will most effectively advance the mission of the NCI. This collaborative announcement is not a funding mechanism or a promise to enter into any specific agreement. Interested parties should contact Dr. Jeffrey Thomas (information below). WEBINAR DETAILS 1) Thursday, July 23, 12-1 pm EDT. Join WebEx meeting

Meeting number: 620 093 699

Meeting password: 1234

Join by phone

1-877-668-4493 Call-in toll-free number (US/Canada)

1-650-479-3208 Call-in toll number (US/Canada)

Access code: 620 093 699

Global call-in numbers | Toll-free calling restrictions

Can't join the meeting? Contact support. 2) Wednesday, July 29, 12-1 pm EDT. Join WebEx meeting

Meeting number: 622 333 666

Meeting password: 1234

Join by phone

1-877-668-4493 Call-in toll-free number (US/Canada)

1-650-479-3208 Call-in toll number (US/Canada)

Access code: 622 333 666

Potential Commercial Applications:
The goal of the collaboration is to explore whether CDR can be useful for biobanking operations in the extramural community. Through a collaborative effort, it could be demonstrated that CDR, as a freely available software package, could be adopted to standardize and streamline biobanking operations across the broader research community.

Competitive Advantages:
- Provides secure data access based on user's roles and privileges;
- Protects private information in compliance with HIPPA regulations through dynamic content redaction;
- Graphical user interfaces streamline data entry workflow based on SOPs for sample collection and processing;
- Automated data checks and validations confirm data integrity and SOP adherence simultaneously;
- Reporting and analytics module supports data analysis and aggregation, report generation and real-time operational data snapshots.

Development Stage:
-- Prototype

Patent Status:
US: This software will not be patented and is in the public domain.

Contact Information:
Co-Development Opportunities:

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